(No Model.)

R. WILSON.

CULTIVATOR.

No. 418,300. Patented Dec. 31, 1889.

Fig. 1.

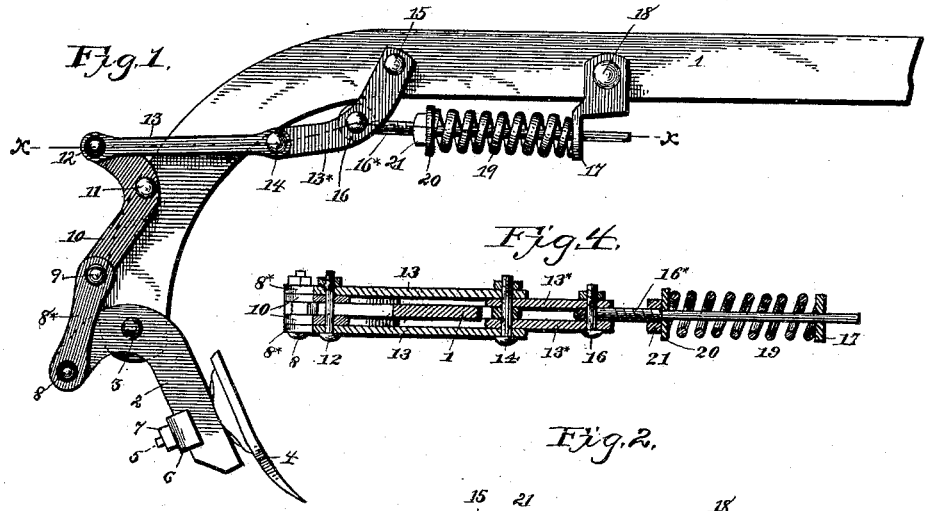


Fig. 4.

Fig. 2.

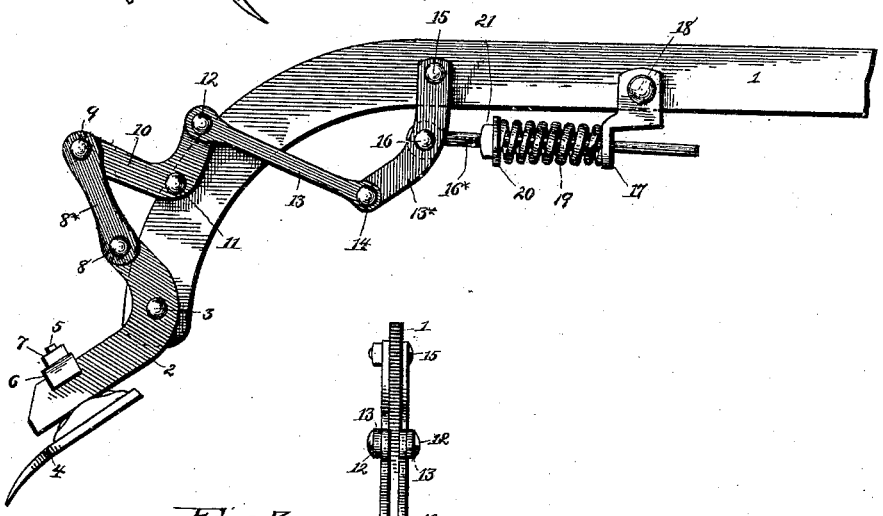
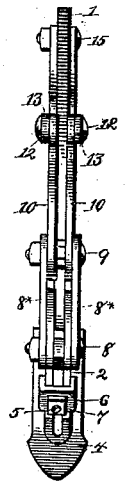


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

ROBERT WILSON, OF ALLEN, PENNSYLVANIA.

CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 418,300, dated December 31, 1889.

Application filed October 22, 1889. Serial No. 327,764. (No model.)

To all whom it may concern:

Be it known that I, ROBERT WILSON, a citizen of the United States, residing at Allen, in the county of Cumberland and State of Pennsylvania, have invented a new and useful Cultivator, of which the following is a specification.

This invention has relation to that class of cultivator-teeth in which a spring and hinged levers are employed for returning the tooth or shovel to position after the same has been rearwardly swung, as caused by encountering an obstruction calculated to break the tooth if the same were rigidly connected to the beam; and the objects and advantages of the invention will hereinafter appear, and the novel features thereof be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a side elevation of a cultivator tooth or shovel mounted upon a beam in accordance with my invention. Fig. 2 is a similar view illustrating the position of the parts with the tooth swung to the rear. Fig. 3 is a rear elevation. Fig. 4 is a section on the line *x x* of Fig. 1.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 represents the beam, the rear end of which is curved downwardly, as is usual, and 2 represents the shovel-standard, formed of strap metal and pivoted at each side of the lower end of the beam by a bolt 3, said standard being continued and curved in rear of the pivot, approximating a bell-crank in shape.

4 represents the shovel-point, the rear end of which is provided with a rearwardly-disposed threaded stud 5, upon which is mounted a clip 6, embracing the opposite rear edges of the standard, and upon the stud is threaded a nut 7.

Pivotally connected by means of a bolt 8 to the rear bifurcations or ends of the standard are a pair of links 8*, and pivotally connected to the opposite ends of the links, as at 9, is a pair of bell-crank links 10, the angles of which are by bolts 11 pivotally connected to the beam 1. Pivotally connected to the rear upper ends of the bell-crank links, as at 12, are a pair of straight links 13, horizontally disposed and having their front ends pivoted beyond the front edge of the beam to the rear ends of a pair of bell-cranks 13* by a bolt 14, the upper ends of the bell-cranks being pivoted to the beam by a bolt 15. A bolt 16 is passed through the latter-mentioned bell-cranks at their angles, and upon the same is pivotally mounted a threaded rod 16*, the rear end of which is supported and adapted to reciprocate in a perforated bracket 17, the upper end of which is securely bolted, as at 18, to the beam. A coiled spring 19 encircles the rod and bears against the face of the bracket, and a plate 20 is mounted on the rod and bears against the rear end of the coiled spring and against the plate, and mounted in the threads of the nut is a set-nut 21, adapted to compress the spring against its tension. The tendency of the spring, as will be apparent from the foregoing description, is to maintain the parts in the position shown in Fig. 1; but it is apparent that should the shovel meet with an obstruction sufficiently great to operate or overcome the tendency of the spring said spring will yield or compress, and the parts will assume the position shown in Fig. 2, in which the shovel-standard is swung to the rear and the spring compressed. When the obstruction has been passed, the tendency of the spring forces the various links back to their original positions, as will be readily understood.

Having thus described my invention, I claim—

The combination, with the beam and the oppositely-pivoted bell-crank standard 2, of a pair of links 8*, pivotally connected to the rear end of the standard, a pair of bell-cranks 10, pivoted to the beam and having their lower ends pivotally connected to the upper end of the links, a pair of horizontal links 13, pivoted at their rear ends to the upper ends of the bell-cranks and embracing the beam, and a pair of bell-cranks 13*, pivoted at their rear ends to the front ends of said links and at their forward ends to

the beam, a bolt 16, passed through said bell-cranks, a threaded rod 16*, having its rear end pivoted to the bolt and its opposite end passed through and supported by a perforated bracket 17, a spring 19, mounted on the bolt, a plate 20, mounted on the spring, and an adjusting-nut 21, mounted over the rod and bearing upon the plate, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

ROBERT WILSON.

Witnesses:
H. W. LANDIS,
W. J. CEAUDY.